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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,444	02/04/2005	Yasuyoshi Kato	KAWZ 200112	9980

7590 12/13/2007
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EXAMINER

MARTINEZ, BRITTANY M

ART UNIT	PAPER NUMBER
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4116

MAIL DATE	DELIVERY MODE
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12/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/506,444	Applicant(s) KATO ET AL.	
	Examiner Brittany M. Martinez	Art Unit 4116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 8-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/1/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Citation to the Specification will be in the following format (S. p. #, l. LL) where # denotes the page number and LL denotes the line number. Citation to U. S. Patent literature will be in the format (Inventor, c. #, l. LL) where # is the column number and LL is the line number. Foreign patent literature will be in the format (Inventor, P) where P denotes the paragraph number.

Status of Application

Applicant's election **with traverse** of Group I (**Claims 1-7**) in the reply filed on November 8, 2007 is acknowledged. However, since Applicant did not provide any arguments, the restriction requirement is maintained, and made FINAL. **Claims 8-15** are withdrawn from further consideration pursuant to CFR 1.12(b) as being drawn to a nonelected invention. The elected claims (**Claims 1-7**) have been examined.

Priority

1. Applicant's claim for foreign priority in regard to JP 2002-56240, filed March 1, 2002, is acknowledged. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
2. Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a certified English translation of the

foreign application must be submitted in reply to this action. 37 CFR 41.154(b) and 41.202(e).

Failure to provide a certified translation may result in no benefit being accorded for the non-English application.

Information Disclosure Statement

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Oath/Declaration

4. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because Applicant's claim for foreign priority in regard to JP 2002-56240 on the Declaration lists JP 2000-56240 as the foreign application to which priority is claimed.

Title

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: *Production of Catalyst for Removal of Nitrogen Oxides*.

Specification

6. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

Abstract

1. The abstract of the disclosure is objected to because it contains the following informalities: it does not include the proper content and does not utilize proper idiomatic English. Appropriate correction is required.
2. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

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Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-2 and 4-5** are rejected under 35 U.S.C. 102(b) as being anticipated by Sugishima et al. (JP 08-257402).

5. With regard to **Claim 1**, Sugishima discloses a method for producing a nitrogen oxide removal catalyst comprising dispersing a hydrated titanium oxide or dried material thereof, tungstic acid or a salt thereof (Sugishima, 0010-0011 and 0014), and cerium dioxide (Sugishima, 0010-0011 and 0015) in a dispersion medium to form a sol-like material, mixing the sol-like material with an aqueous medium to form a catalyst slurry or paste (Sugishima, 0011-0012 and 0016-0022), supporting the catalyst slurry of paste on a catalyst carrier (Sugishima, 0024-0026), and then calcinating the carrier (Sugishima, 0010-0022).

6. With regard to **Claim 2**, Sugishima discloses a method for producing a nitrogen oxide removal catalyst wherein a colloidal silica is further mixed to form the catalyst slurry (Sugishima, 0024-0025).
7. With regard to **Claim 4**, Sugishima discloses a method for producing a nitrogen oxide removal catalyst wherein inorganic short fibers are further mixed to form the catalyst slurry (Sugishima, 0025).
8. With regard to **Claim 5**, Sugishima discloses a method for producing a nitrogen oxide removal catalyst wherein the catalyst carrier is an inorganic fiber catalyst carrier, ceramic catalyst carrier, or metal catalyst carrier (Sugishima, 0025).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugishima et al. (JP 08-257402) as applied to **Claim 1** above, and further in view of Inoue et al. (US 4,221,768).

13. With regard to **Claim 3**, Sugishima does not disclose a method for producing a nitrogen oxide removal catalyst wherein oxalic acid is further mixed to form the catalyst slurry. Inoue teaches a process for producing a titanium oxide/silicon oxide catalyst for removing nitrogen oxides in wherein oxalic acid is further mixed to form the catalyst slurry (Inoue, paragraph 23). Thus, it would have been obvious to one of ordinary skill in the art to modify the process taught by Sugishima with oxalic acid as taught by Inoue in order to acidify the catalyst slurry and obtain a catalyst suitable for purifying exhaust and waste gases (Inoue, paragraphs 1 and 23).

14. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugishima et al. (JP 08-257402) as applied to **Claim 5** above, and further in view of Shibata (US 4,931,421).

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15. With regard to **Claim 6**, Sugishima discloses an inorganic fiber catalyst carrier (Sugishima, 0025), a silica alumina support (Sugishima, 0025), and a honeycomb or corrugated plate catalyst carrier shape (Sugishima, 0026). However, Sugishima does not specifically disclose a method for producing a nitrogen oxide removal catalyst wherein the inorganic fiber catalyst carrier is a corrugated honeycomb carrier prepared by subjecting a sheet of silica-alumina type inorganic fibers to a corrugating processing. Shibata teaches a corrugated honeycomb carrier prepared by subjecting a sheet of alumina coated pipe-like substrates to a corrugating processing (Shibata, paragraphs 36-38). Thus, it would have been obvious to one of ordinary skill in the art to modify the process taught by Sugishima with the corrugated honeycomb carrier taught by Shibata in order to obtain a catalyst carrier which has gas permeability in at least one direction and which is useful to purify various combustion gases (Shibata, paragraph 71).

16. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugishima et al. (JP 08-257402) as applied to **Claim 5** above, and further in view of Kato et al. (US 5,087,600).

17. With regard to **Claim 7**, Sugishima does not disclose a method for producing a nitrogen oxide removal catalyst wherein the metal catalyst carrier is a metal lath. Kato teaches a metal lath as a metal catalyst carrier in a process for producing a denitration catalyst (Kato, c. 6, l. 15-35 and c. 9, l. 34-39). Thus, it would have been obvious to one of ordinary skill in the art to modify the process taught by Sugishima with the metal lath taught by Kato in order to obtain a catalyst having high strength and resistance to poisons (Kato, "Abstract").

Conclusion

1. No claim is allowed.
2. In general, prior art renders the claimed invention anticipated and obvious.
3. Applicant is required to provide pinpoint citation to the specification (i.e. page and paragraph number) to support any amendments to the claims in all subsequent communication with the examiner. **No new matter will be allowed.**
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brittany M. Martinez whose telephone number is (571) 270-3586. The examiner can normally be reached Monday-Thursday 6:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571) 272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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BMM

/Vickie Kim/

Supervisory Patent Examiner, Art Unit 4116